

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-16				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number       3			Standard Chlorine Chemical Co.				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   06/30/2015   To   04/29/2016					
Comments: The purpose of this amendment is to initiate WA #3-16. Keith Moncino is appointed as the Work Assignment Manager (WAM) and Justin Gottesman is appointed as the alternate WAM. The level of effort (LOE) is 290 hours. The Statement of Work is attached. The contractor shall submit a work plan and cost estimate.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012   To   04/29/2016										
This Action:						290				
Total:						290				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   Keith Moncino						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number   212-637-4353				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number: 202-564-8316				
						FAX Number:				

## **Statement of Work**

**Contract: EP-W-12-013**

**Work Assignment: 3-16**

1. **Title:** Standard Chlorine Chemical Co. Inc. Site
2. **Period of Performance:** Date of CO signature through 10/30/2015
3. **Work Assignment Manager:** Keith Moncino

Mailing Address:

US Environmental Protection Agency

18<sup>th</sup> Floor

290 Broadway

New York, NY 10007

Phone: 212-637-4353

E-mail: [moncino.keith@epa.gov](mailto:moncino.keith@epa.gov)

## **BACKGROUND**

The Standard Chlorine Chemical Co, Inc. (SCCC) Site occupies an area of approximately 25 acres in a heavily industrialized area of Kearny, Hudson County, New Jersey. The SCCC property is bounded by the Hackensack River to the northeast, Belleville Turnpike to the southwest, the Diamond Shamrock Site to the north and northwest, and the Koppers Seaboard Site to the southeast. Manufacturing operations were conducted at the SCCC Site by various entities between 1916 and 1993, and included the refining of naphthalene, the manufacture of products from naphthalene, naphthalene derivatives, and dichlorobenzenes, the formulation of drain cleaning products, and the processing of trichlorobenzene. The SCC Site has undergone various interim response actions approved by the US Environmental Protection Agency (EPA) and overseen by the New Jersey Department of Environmental Protection. Currently, the SCCC Site is undergoing a Remedial Investigation/Focus Feasibility Study under the purview of an EPA Administrative Order on Consent signed by Apogent Transition, Corp., Beazer East, Inc., Cooper Industries, LLC, and Occidental Chemical Corporation.



## **TASKS**

### **Task One: Task Management**

The Contractor shall prepare and submit a work plan. Work under this task shall include participating in a kick-off meeting with the EPA, preparing monthly progress reports, and other task management activities.

### **Task Two: Research and Information Gathering**

The contractor shall:

- Review previous PRP submissions (mostly in response to 104(e) requests) regarding Tanatex Corporation liabilities at the SCCC Site, primarily in regards to Apogent Transition, Corp., Apogent Technologies, Inc., and Lanxess Corporation, and Lanxess Sybron Chemicals, Inc. potentially having some or all of the successor liabilities
- Determine whether Apogent Transition, Corp is indeed asset-less as it claims and, if so, any parent entities which would have funds including, but not limited to, Apogent Technologies, Inc.
- Identify any evidence that could potentially support a fraudulent conveyance from Apogent Technologies Inc. and/or others to Apogent Transition, Corp.
- Develop 104(e) questions to the Apogent entities regarding assets, liabilities, and facts relating to fraudulent conveyance
- Determine whether StarChem LLC has any connection to Tanatex liabilities and, if so, provide 104(e) questions
- Determine whether Lanxess Sybron Chemical, Inc. or Lanxess Corporation (NY and DE entities) have retained any of the Tanatex liabilities

### **Task: Three: Develop White Paper**

Contractor shall report the findings of bullets 2, 3, 4, 5, and 6 of task 2 in a memo/white paper.

### **Task Four: Conference Calls and Face-to-Face Meetings**

Contractor shall take notes during any meetings/teleconferences with the EPA. For budgeting purposes, the contractor shall assume 4 teleconferences/meetings with the EPA.

## **DELIVERABLES AND SCHEDULE**

<b>Deliverable</b>	<b>Schedule</b>
Task Management	Work plan 2 weeks after receipt of work assignment
Research/Information Gathering	
Develop White Paper	No later than September 30, 2015
Conference Calls/Meetings Summaries	Summaries within 3 work days after each teleconference/meeting

## **ESTIMATE OF LABOR HOURS**

The estimated level of effort for this requirement is: 155 **hours**

## **PERIOD OF PERFORMANCE**

Date of Contracting Officer's signature through **10/30/15**.

The following terms and conditions are requirements of this task order:

## **TECHNICAL DIRECTION**

In accordance with EPAAR 1552.237-71–Technical Direction, the Task Order Contracting Officer's Representative (TOCOR) will provide Technical Direction during performance of this task order. Technical direction includes:

- (1) Instruction to the contractor that approves approaches, solutions, designs, or refinements; fills in details; completes the general description of work; shifts emphasis among work areas or tasks; and
- (2) Evaluation and acceptance of reports or other deliverables.

Technical Direction must be within the scope of the contract-level SOW. The TOCOR does not have the authority to issue Technical Direction which:

- (1) Requires additional work outside the scope of the contract or task order;
- (2) Constitutes a change as defined in the "Changes" clause;
- (3) Causes an increase or decrease in the estimated cost of the contract or task order;
- (4) Alters the period of performance of the contract or task order; or
- (5) Changes any of the other express terms or conditions of the contract or task order.

Technical Direction will be issued in writing by the TOCOR, or confirmed by the TOCOR in writing within five (5) calendar days after oral issuance.

Work Assignment Form, (WebForms v1.0)

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-16				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016 Base                      Option Period Number      3			Title of Work Assignment/SF Site Name Standard Chlorine Chem.				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   06/30/2015   To   04/29/2016					
Comments: This amendment is to de-scope work assignment 3-16 by 62 hours and put it into stop work, as all tasks have been completed. The level of effort expended to date is 228 hours and cost is \$21,071.26 (Cost (b)(4) Fee (b)(4)). The contractor is not allowed to perform any further action on this work										
<input type="checkbox"/> Superfund					Accounting and Appropriations Data					<input checked="" type="checkbox"/> Non-Superfund
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)					Note: To report additional accounting and appropriations data use EPA Form 1900-69A.					
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
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5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012 To 04/29/2016										
This Action:						228				
Total:						228				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:					Cost/Fee			LOE:		
Cumulative Approved:					Cost/Fee			LOE:		
Work Assignment Manager Name   Keith Moncino							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>							Phone Number: 212-637-4353			
							FAX Number:			
Project Officer Name   Shannon Sturgeon							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>							Phone Number: 703-605-0509			
							FAX Number: 703-308-7903			
Other Agency Official Name							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>							Phone Number:			
							FAX Number:			
Contracting Official Name   Eulvid Rocque							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>							Phone Number: 202-564-8316			
							FAX Number:			

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-17				
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Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016 Base                      Option Period Number       3			Title of Work Assignment/SF Site Name eManifest Second Year Rulemaki				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2015   To   04/29/2016				
Comments: The purpose of this amendment is to initiate Work Assignment(WA)3-17. The level of effort (LOE) is in the amount of 608 hours. Chris McMinimy is appointed as the work assignment manager (WAM). The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
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5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012   To   04/29/2016										
This Action:						608				
Total:						608				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   Chris McMinimy  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number   703-308-0105 FAX Number:				
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8316 FAX Number:				

## **Statement of Work**

18 March, 2015

Project Title: Economic Support for EPA's e-Manifest second-year rulemaking  
Contract No.: EP-W-12-013  
Work Assignment No.: 3-17  
Works Assignment Manager (COTR): Chris McMinimy, Economist  
EPA Office of Resource Conservation & Recovery (ORCR)  
703-308-0105  
Alt COTR: Richard Benware, Economist  
EPA Office of Resource Conservation & Recovery (ORCR)  
703-308-0439  
Period of Performance: CO signature through April 29, 2016.

### **I. Introduction**

EPA is continuing work on a second e-Manifest rulemaking. The first rulemaking, referred to hereafter as the first-year rule, declares that electronic hazardous waste manifests are the legal equivalent of the existing paper manifests. It declares that these "e-manifests" may be submitted to EPA in lieu of paper manifests once an electronic system to collect, process and distribute them, aka "e-Manifest," has been built and turned on. The first-year rule declares EPA's intention to build an EPA-hosted and centralized e-Manifest system. Lastly, the first rule discusses issues relating to hazardous-waste-manifest data public access and electronic signature verification.

EPA's second rulemaking, referred to hereafter as the second-year rule, will determine the fees to be charged for use of the system and publish the date upon which the system will go live. This rulemaking will require economic support in the following areas:

1. Gathering information on business activity and practices within the hazardous waste generation, shipping, and TSFD sectors specific to the needs of this rule. This body of knowledge will help EPA estimate the costs and benefits of e-Manifest and will also help EPA determine the appropriate e-Manifest fees.
2. Producing a regulatory impact analysis (RIA) to accompany the second-year e-Manifest rulemaking. This RIA will estimate the costs and benefits of the e-Manifest system upon the affected universe of industrial entities, state governments, and federal agencies per the guidance found in OMB Circular A-4.

## **II. Purpose and Scope of this Work Assignment**

The purpose of this Work Assignment (WA) is to provide support for ORCR/ERAS' work in the economic support areas described above.

The scope of this WA includes: market research to determine the ownership of reporting facilities in the RCRA Biennial Report, research to determine which reporting facilities shipped and which reporting facilities received waste shipments in the RCRA Biennial Report (hereafter referred to as the BR), and document assistance in support of the RIA.

Finally, this WA includes the preparation of emergency turnaround assessments, general supporting materials, briefings, general project coordination, and ongoing communication/outreach to the WAM/TOCOR.

## **III. Work Statement**

### **Task 1. Work Plan, Progress Reports and Budget**

Within twenty (20) days of receipt of this work assignment, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this Work Assignment shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html)

As part of the monthly progress reports for this Work Assignment, the Contractor shall provide a summary of all data collection and quality control activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the WAM/TOCOR.

Contractor travel is authorized under this Work Assignment. The contractor shall budget for no more than one overnight trip for two or less persons, round trip from Cambridge/Boston, MA to Arlington, VA/Washington, D.C.

### **Deliverable(s) and Schedule:**

Work Plan and Budget within allotted time frame identified above.

## **Task 2:**                    **Programmatic Support**

The contractor shall provide programmatic support in the area of short-term or quick turnaround technical assistance, analysis, and supporting documents to ORCR for the “**e-Manifest second-year proposed rule,**” and related work.

Under this task the contractor shall develop and submit various general support documents and analyses directly or indirectly related to the proposed rule. Examples of such documents/analyses may include, but not be limited to:

- cost or cost savings summary tables addressing impacts of one or more of the regulatory improvement areas;
- briefing packages;
- fact sheets, flow charts, or presentation graphics;

The need for and number of such documents is uncertain at the time of this work assignment. The WAM will provide a Technical Directive (TD) designed to clarify the need and scope of such document(s), as necessary. The contractor shall budget for approximately three (3) TDs under this Task.

### **Deliverable(s) and Schedule:**

<b>DELIVERABLES</b>	<b>DUE DATES</b>
Development of quick-turnaround support documents and analyses related to the rule:  To be defined in each TD (e.g., briefing package, fact sheet)	<u>Draft:</u> Five (5) Agency working days from contractor receipt of TD, and all supporting information.  <u>Final:</u> Five (5) Agency working days from contractor receipt of all written WAM comments on the draft.

## **Task 3:**                    **Assistance determining ownership of BR Reporting Facilities**

### *Subtask A: Ownership Assessment for 2011 BR Reporting Cycle*

Under this task the contractor shall first assemble a universe of facilities that shipped hazardous waste for treatment during the 2011 BR cycle as well as a universe of facilities that received waste for treatment during the 2011 BR cycle. The contractor shall then determine the corporate owners of each reporting facility using Dunn and Bradstreet or similar business information databases. The specific data elements to be pulled and recorded for each facility and parent company shall be determined by consultation with the WAM prior to the initiation of the work under this subtask.

### *Subtask B: Ownership Assessment for additional BR Reporting Cycles*

Under this task the WAM may request that the contractor perform the same analysis performed under *Subtask A* for additional BR reporting cycles. This would provide a clearer picture of the



affected universe of facilities over time which would help EPA more accurately estimate the costs and benefits of the second year rule. Work on this task will not begin without a technical directive from the WAM requesting the contractor to proceed with this task and stating which additional BR reporting cycles the WAM wishes the contractor to conduct the analysis for.

**Deliverable(s) and Schedule:**

Deliverable for this task shall include the draft and final ownership reports described in *Subtask A* above.

<b>DELIVERABLES</b>	<b>DUE DATES</b>
Analysis of 2011 BR reporting facilities	<u>Draft Document:</u> No later than twenty (20) Agency working days following the approval of this work assignment by the CO.  <u>Final Document:</u> No later than ten (10) Agency working days following contractor receipt of all written WAM comments on the draft.
Analysis of reporting facilities in additional BR reporting cycles	<u>Draft Document:</u> No later than twenty (20) Agency working days following WAM Technical Directive requesting the contractor begin work on this task.  <u>Final Document:</u> No later than ten (10) Agency working days following contractor receipt of all written WAM comments on the draft.

**Task 4:**                      **Document Assistance for the Development of the RIA**

Under this task the contractor shall assist EPA in writing up and formatting the RIA document. The WAM shall provide the contractor with a table of contents, tables, charts, results documents and other results of economic analyses conducted by EPA. The contractor shall assemble these into an RIA document based on the table of contents given to the contractor by the WAM and with additional WAM direction. The RIA produced by the contractor shall meet the following standards:

- All final deliverables and documents prepared under this Task shall be clear, concise, well organized, properly referenced, and complete;
- All final documents presented under this task shall be technically accurate, defensible, free of errors, and editorially correct (e.g., free of typographic and grammatical errors);
- All written materials prepared for use by the public shall follow the “Plain English” style of writing unless specifically stated otherwise in the task order; and,
- All materials presented under this task shall be delivered according to EPA-specified delivery schedules.

**Deliverable(s) and Schedule:**

The deliverables for this task shall consist of the draft and final versions of the RIA document.

<b>DELIVERABLES</b>	<b>DUE DATES</b>
RIA Document	<p><u>Draft Document:</u> No later than thirty (30) Agency working days following the final submission of material to the contractor by the WAM.</p> <p><u>Final Document:</u> Twenty (20) Agency working days following contractor receipt of all WAM written comments on the draft.</p>

Summary of Deliverables and Schedule		
<i>Task and Deliverable(s)</i>	<i>Draft</i>	<i>Final</i>
<b>Task 1: <u>Work Plan, Progress Reports and Budget</u></b>		
Initial Work Plan and Budget	As required by Contract.	As required by Contract.
<b>Task 2: <u>Programmatic Support</u></b>		
Development of quick-turnaround support documents and analyses related to the rule:  To be defined in each TD (e.g., briefing package, fact sheet)	<u>Draft</u> : Five (5) Agency working days from receipt of TD and all supporting information.	<u>Final</u> : Ten (10) Agency working days from receipt of all written WAM comments on draft.
<b>Task 3: <u>Assistance determining ownership of BR Reporting Facilities</u></b>		
Analysis of 2011 BR reporting facilities	<u>Draft Document</u> : No later than twenty (20) Agency working days following the approval of this work assignment by the CO.	<u>Final Document</u> : No later than ten (10) Agency working days following contractor receipt of all written WAM comments on the draft.
Analysis of reporting facilities in additional BR reporting cycles	<u>Draft Document</u> : No later than twenty (20) Agency working days following WAM Technical Directive requesting the contractor begin work on this task.	<u>Final Document</u> : No later than ten (10) Agency working days following contractor receipt of all written WAM comments on the draft.
<b>Task 4: <u>Document Assistance for the Development of the RIA</u></b>		
RIA Document	<u>Draft Document</u> : No later than thirty (30) Agency working days following the final submission of material to the contractor by the WAM.	<u>Final Document</u> : Twenty (20) Agency working days following contractor receipt of all WAM written comments on the draft.

## **WORK ASSIGNMENT ADDITIONAL REQUIREMENTS OFFICE OF RESOURCE CONSERVATION AND RECOVERY**

The following additional terms and conditions are requirements of this task order:

### **TECHNICAL DIRECTION**

In accordance with EPAAR 1552.237-71–*Technical Direction*, the WAM will provide Technical Direction during performance of this Work Assignment. Technical direction includes:

1. Instruction to the contractor that approves approaches, solutions, designs, or refinements; fills in details; completes the general description of work; shifts emphasis among work areas or tasks; and
2. Evaluation and acceptance of reports or other deliverables.

Technical Direction must be within the scope of the contract-level SOW. The WAM does not have the authority to issue Technical Direction which:

1. Requires additional work outside the scope of the contract or Work Assignment;
2. Constitutes a change as defined in the "Changes" clause;
3. Causes an increase or decrease in the estimated cost of the contract or Work Assignment;
4. Alters the period of performance of the contract or Work Assignment; or
5. Changes any of the other express terms or conditions of the contract or Work Assignment.

Technical Direction will be issued in writing by the WAM, or confirmed by the WAM in writing within five (5) calendar days after oral issuance, if oral instruction provided.

### **QUALITY ASSURANCE**

Performance under this Work Assignment requires the contractor to prepare a Quality Assurance Project Plan (QAPP) to be included as part of the Work Assignment. The contractor shall submit a QAPP with its Work Plan in accordance with *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* found here: <http://www.epa.gov/QUALITY/qs-docs/r5-final.pdf>. The contractor's QAPP must be approved by the WAM and Quality Assurance Manager before Work Plan approval. Following approval of the contractor's QAPP, the contractor shall perform all tasks under this Work Assignment in accordance with the quality standards established in the QAPP.

### **SURVEY MANAGEMENT**

Performance under this Work Assignment may require the contractor to create statistical surveys, perform data collection, use questionnaires, or perform statistical analysis of survey data. The contractor shall perform these tasks in accordance with the *EPA Survey Management Handbook* found here: <http://www.epa.gov/oamcinc1/0710295/attach12.pdf>.

### **COMMUNICATIONS PRODUCTS**

Performance under this Work Assignment may require the contractor to develop deliverables that are considered by EPA to be "Communications Products." If relevant, the contractor shall develop

Communications Products in accordance with *EPA's Policy and Implementation Guide for Communications Product Development and Approval* found here: <http://www.epa.gov/productreview/guide/index.html>. Additionally, if Communications Products require the use of EPA graphics, logos, or other identifiable materials, the Communications Products are further subject to the standards in *EPA's Visual and Product Standards Graphics Manual* found here: <http://wedcor.cor.epa.gov/pages/TIM/VisualIdentity-6-19-07.pdf>.



Work Assignment Form, (WebForms v1.0)

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-17				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number       3			e-Manifest Second Year Rule RI				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   04/30/2015   To   04/29/2016					
Comments: The purpose of this amendment is to add additional level of efforts (LOE) to Work Assignment(WA)3-17 is in the amount of 260 hours. The new total LOE for this work assignment is 868 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012   To   04/29/2016										
This Action:						868				
Total:						868				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   Chris McMinimy						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number   703-308-0105				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      _____ (Date)						Phone Number: 202-564-8316				
						FAX Number:				



## **Statement of Work**

21 July, 2015

Project Title: Economic Support for EPA's e-Manifest second-year rulemaking  
Contract No.: EP-W-12-013  
Work Assignment No.: 3-17  
Works Assignment Manager (COTR): Chris McMinimy, Economist  
EPA Office of Resource Conservation & Recovery (ORCR)  
703-308-0105  
Alt COTR: Richard Benware, Economist  
EPA Office of Resource Conservation & Recovery (ORCR)  
703-308-0439  
Period of Performance: CO signature through April 29, 2016.

### **I. Introduction**

EPA is continuing work on a second e-Manifest rulemaking. The first rulemaking, referred to hereafter as the first-year rule, declares that electronic hazardous waste manifests are the legal equivalent of the existing paper manifests. It declares that these "e-manifests" may be submitted to EPA in lieu of paper manifests once an electronic system to collect, process and distribute them, aka "e-Manifest," has been built and turned on. The first-year rule declares EPA's intention to build an EPA-hosted and centralized e-Manifest system. Lastly, the first rule discusses issues relating to hazardous-waste-manifest data public access and electronic signature verification.

EPA's second rulemaking, referred to hereafter as the second-year rule, will determine the fees to be charged for use of the system and publish the date upon which the system will go live. This rulemaking will require economic support in the following areas:

1. Gathering information on business activity and practices within the hazardous waste generation, shipping, and TSFD sectors specific to the needs of this rule. This body of knowledge will help EPA estimate the costs and benefits of e-Manifest and will also help EPA determine the appropriate e-Manifest fees.
2. Producing a regulatory impact analysis (RIA) to accompany the second-year e-Manifest rulemaking. This RIA will estimate the costs and benefits of the e-Manifest system upon the affected universe of industrial entities, state governments, and federal agencies per the guidance found in OMB Circular A-4.

## **II. Purpose and Scope of this Work Assignment Modification**

The purpose of this Work Assignment Modification is to add scope to the existing Work Assignment 3-17, specifically to Task 4. Under Task 4 the contractor was directed to produce chapters for the second year rule RIA from outlines and model output provided by the WAM. Several of the RIA chapters, however, build on research and analysis already done by the contractor. These chapters can be written without the same level of input and guidance from the WAM. Additional scope is necessary for this work to cover the greater level of planning execution that the contractor will have to undertake.

## **III. Work Statement**

### **Task 1. Work Plan, Progress Reports and Budget**

Within twenty (20) days of receipt of this work assignment, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this Work Assignment shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html)

As part of the monthly progress reports for this Work Assignment, the Contractor shall provide a summary of all data collection and quality control activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the WAM/TOCOR.

Contractor travel is authorized under this Work Assignment. The contractor shall budget for no more than one overnight trip for two or less persons, round trip from Cambridge/Boston, MA to Arlington, VA/Washington, D.C.

### **Deliverable(s) and Schedule:**

Work Plan and Budget within allotted time frame identified above.

**Deliverable(s) and Schedule:**

<b>DELIVERABLES</b>	<b>DUE DATES</b>
Development of quick-turnaround support documents and analyses related to the rule:  To be defined in each TD (e.g., briefing package, fact sheet)	<u>Draft</u> : Five (5) Agency working days from contractor receipt of TD, and all supporting information.  <u>Final</u> : Five (5) Agency working days from contractor receipt of all written WAM comments on the draft.

**Task 4:**                      **Development of RIA Chapters**

Under this task the contractor shall assist EPA in writing up and formatting the RIA document, and write certain chapters of the RIA as specified by the WAM. For some chapters of the RIA the WAM shall provide the contractor with background documentation, sources, and results of cost benefit and economic models, to be described in each chapter. For other chapters, the contractor shall organize and write them using their discretion. Once all chapters are completed the contractor shall assemble these into RIA. The RIA produced by the contractor shall meet the following standards:

- All final deliverables and documents prepared under this Task shall be clear, concise, well organized, properly referenced, and complete;
- All final documents presented under this task shall be technically accurate, defensible, free of errors, and editorially correct (e.g., free of typographic and grammatical errors);
- All written materials prepared for use by the public shall follow the “Plain English” style of writing unless specifically stated otherwise in the task order; and,
- All materials presented under this task shall be delivered according to EPA-specified delivery schedules.

**Deliverable(s) and Schedule:**

The deliverables for this task shall consist of the draft and final versions of the RIA document.

DELIVERABLES	DUE DATES
RIA Chapters	<p data-bbox="740 921 1333 1062"><u>Draft Chapter:</u> No later than fifteen (15) Agency working days following the final submission of material to the contractor by the WAM.</p> <p data-bbox="751 1106 1321 1201"><u>Final Chapter:</u> No later than ten (10) Agency working days following contractor receipt of all WAM written comments on the draft.</p>

**WORK ASSIGNMENT ADDITIONAL REQUIREMENTS  
OFFICE OF RESOURCE CONSERVATION AND RECOVERY**

The following additional terms and conditions are requirements of this task order:

**TECHNICAL DIRECTION**

In accordance with EPAAR 1552.237-71–*Technical Direction*, the WAM will provide Technical Direction during performance of this Work Assignment. Technical direction includes:

1. Instruction to the contractor that approves approaches, solutions, designs, or refinements; fills in details; completes the general description of work; shifts emphasis among work areas or tasks; and
2. Evaluation and acceptance of reports or other deliverables.

Technical Direction must be within the scope of the contract-level SOW. The WAM does not have the authority to issue Technical Direction which:

1. Requires additional work outside the scope of the contract or Work Assignment;
2. Constitutes a change as defined in the "Changes" clause;
3. Causes an increase or decrease in the estimated cost of the contract or Work Assignment;
4. Alters the period of performance of the contract or Work Assignment; or
5. Changes any of the other express terms or conditions of the contract or Work Assignment.

Technical Direction will be issued in writing by the WAM, or confirmed by the WAM in writing within five (5) calendar days after oral issuance, if oral instruction provided.

**QUALITY ASSURANCE**

Performance under this Work Assignment requires the contractor to prepare a Quality Assurance Project Plan (QAPP) to be included as part of the Work Assignment. The contractor shall submit a QAPP with its Work Plan in accordance with *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* found here: <http://www.epa.gov/QUALITY/qs-docs/r5-final.pdf>. The contractor's QAPP must be approved by the WAM and Quality Assurance Manager before Work Plan approval. Following approval of the contractor's QAPP, the contractor shall perform all tasks under this Work Assignment in accordance with the quality standards established in the QAPP.

**SURVEY MANAGEMENT**

Performance under this Work Assignment may require the contractor to create statistical surveys, perform data collection, use questionnaires, or perform statistical analysis of survey data. The contractor shall perform these tasks in accordance with the *EPA Survey Management Handbook* found here: <http://www.epa.gov/oamcinc1/0710295/attach12.pdf>.

**COMMUNICATIONS PRODUCTS**

Performance under this Work Assignment may require the contractor to develop deliverables that are considered by EPA to be "Communications Products." If relevant, the contractor shall develop Communications Products in accordance with *EPA's Policy and Implementation Guide for Communications Product Development and Approval* found here: <http://www.epa.gov/productreview/guide/index.html>. Additionally, if Communications Products require the use of EPA graphics, logos, or other identifiable materials, the Communications Products are further subject to the standards in *EPA's Visual and Product Standards Graphics Manual* found here: <http://wedcor.cor.epa.gov/pages/TIM/VisualIdentity-6-19-07.pdf>.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <h1 style="margin: 0;">EPA</h1> </div> <div style="text-align: center;"> <p>United States Environmental Protection Agency Washington, DC 20460</p> <h2 style="margin: 0;">Work Assignment</h2> </div> </div>		<p>Work Assignment Number 3-17</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <input type="checkbox"/> Other             <input checked="" type="checkbox"/> Amendment Number:           </div> <p style="text-align: right;">000003</p>								
<p>Contract Number EP-W-12-013</p>		<p>Contract Period 04/30/2015 To 04/29/2016</p> <p>Base Option Period Number 3</p>								
<p>Contractor INDUSTRIAL ECONOMICS, INCORPORATED</p>		<p>Specify Section and paragraph of Contract SOW</p>								
<p>Purpose:</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Work Assignment  <input checked="" type="checkbox"/> Work Assignment Amendment  <input type="checkbox"/> Work Plan Approval           </div> <div> <input type="checkbox"/> Work Assignment Close-Out  <input type="checkbox"/> Incremental Funding           </div> </div>		<p>Period of Performance</p> <p>From 04/30/2015 To 04/29/2016</p>								
<p>Comments:</p> <p>The purpose of this amendment is to approve and accept the contractor's work plan/cost Estimate dated 07/28/2015 with a level of effort (LOE) of 260 hours and \$26,708.02 (b)(4) cost (b)(4) fee). The total ceiling is 868 hours and \$87,269.85 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approve ceilings without the approval of the Contracting Officer.</p>										
<input type="checkbox"/> Superfund		Accounting and Appropriations Data								
		<input checked="" type="checkbox"/> Non-Superfund								
<p>SFO (Max 2) <span style="border: 1px solid black; padding: 2px 10px;">22</span></p> <p style="text-align: center; font-size: small;">Note: To report additional accounting and appropriations date use EPA Form 1900-69A.</p>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2015 To 04/29/2016				868						
This Action:				0						
Total:				868						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:		Cost/Fee:		LOE:						
Cumulative Approved:		Cost/Fee:		LOE:						
Work Assignment Manager Name Chris McMinimy						Branch/Mail Code:				
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Signature)</div> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Date)</div> </div>						Phone Number 703-308-0105				
						FAX Number:				
Project Officer Name Shannon Sturgeon						Branch/Mail Code:				
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Signature)</div> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Date)</div> </div>						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Signature)</div> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Date)</div> </div>						Phone Number:				
						FAX Number:				
Contracting Official Name Eulvid Rocque						Branch/Mail Code:				
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Signature)</div> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">(Date)</div> </div>						Phone Number: 202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 3-17								
		<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000004								
Contract Number EP-W-12-013	Contract Period   04/30/2012   To   04/29/2017 Base                      Option Period Number      3	Title of Work Assignment/SF Site Name eManifest Second Year Rulemaki								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   04/30/2015   To   04/29/2016								
Comments: The purpose of this amendment is to de-scope the level of effort (LOE) of this work assignment by 170.2 hours and \$22,452.66 (b)(4) cost (b)(4) fee). The approved ceiling for this work assignment is now LOE at 697.8 hours and \$64,817.19 (b)(4) cost (b)(4) fee). The contractor is not authorized to										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO    22                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2012   To   04/29/2017				0						
This Action:				698						
Total:				698						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Chris McMinimy						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-308-0105				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-19				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016 Base                      Option Period Number       3			Title of Work Assignment/SF Site Name CERCLA 108 (b) Hardrock mining				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2015   To   04/29/2016				
Comments: The purpose of this amendment is to initiates Work Assignment (WA)3-19 with 378 LOE hours. Bill Kline is appointed as the work assignment manager (WAM) and Mike Pease as the alternate WAM. The statement of work is attached. The contractor shall submit a work plan/cost estimate as it relates to this request..										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012 To 04/29/2016										
This Action:						378				
Total:						378				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   Bill Kline  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number   540-341-3631 FAX Number:				
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number:   703-605-0509 FAX Number:   703-308-7903				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number:   202-564-8316 FAX Number:				



**Statement of Work**  
**EPA Contract No. EP-W-12-013**  
**Work Assignment No. 3-19**  
**Period of Performance: 04/30/15 – 04/29/16**

**Title:** Analytical Support for Evaluating Releases of CERCLA Hazardous Substances at Currently Operating Hardrock Mining and Processing Facilities Potentially Subject to CERCLA 108(b) Financial Assurance Requirements

**EPA Work Assignment Manager:** William Kline  
Office of Resource Conservation and Recovery (5303P)  
Email: kline.bill@epa.gov  
Phone: (540) 341-3631  
Fax: (540) 349-9181

**EPA Alternative WAM:** Michael Pease  
Office of Resource Conservation and Recovery (5303P)  
Email: pease.michael@epa.gov  
Phone: (703) 308-0008

**Background**

The Office of Resource Conservation and Recovery (ORCR) is developing a proposed rule to apply financial assurance requirements for facilities within certain hard rock mining and mineral processing commodities. A proposed rule for the hard rock mining and mineral processing industry is currently scheduled for publication in August 2016. The authorizing statute specifies that facilities establish and maintain evidence of financial responsibility “consistent with the degree and duration of risk associated with production, transportation, treatment, storage or disposal of hazardous substances.” Section 108(b) of CERCLA establishes regulatory authority with respect to financial responsibility requirements to compel classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, and disposal of hazardous substances. On July 28, 2009 (74 FR 37213), EPA identified hardrock mining facilities (i.e., extraction, beneficiation, and processing of ores and nonmetallic minerals) as the initial classes of facilities that will be subject to financial assurance requirements under CERCLA 108(b). EPA needs to better understand the extent to which the implementation of federal and State environmental regulatory programs, along with current mining/processing practices, have mitigated/eliminated the non-permitted releases of hazardous substances into the environment. Under this work assignment, the contractor shall continue to implement the framework and proceed in accordance with the deliverables submitted to and approved by the EPA WAM under work assignment 2-19.

**Task 1. Prepare Work Plan and Budget**

Within 20 calendar days of the receipt of this work assignment, the Contractor shall deliver a work plan. The work plan shall include: a description of the technical approach; the planned level of effort for each task by professional level; project organization; work assignment cost estimates for direct labor, other direct costs, and as otherwise required by the contract; and a schedule for significant milestones for deliverables. EPA believes that much of the work should be accomplished concurrently. EPA likewise anticipates that the contractor shall maintain the

project staffing assembled for work assignment 2-19. The contractor shall maintain at least weekly communication with the EPA Work Assignment Manager, by phone and/or e-mail, to discuss the status of work under this work assignment. In addition, the contractor shall prepare and deliver a monthly technical and financial progress report in conformance with the requirements of the contract.

<b>Deliverables</b>	<b>Due Date</b>
Work Plan	Within 20 days of effective date of work assignment
Progress Reports	Monthly

**Task 2: Continue to Collect and Analyze Hardrock Mining/Processing Historical Site Data**

Taking into consideration the work performed in work assignment 2-19, including: 1) the numerous data sources and files provided by EPA, 2) the framework that was developed and approved by the EPA WAM, 3) the *Proposed Data Collection Process for Historical Sites and Currently Operating Facilities* that was approved by the EPA WAM, and 4) the approach used/data obtained for developing a prototype profile of one or more initial commodities (e.g., gold), contractor shall continue to collect and analyze data about the historical sites to develop the baseline “picture” for historical sites – against which to evaluate the impact of current mining and processing practices and implementation of environmental reg programs in mitigating or eliminating the unpermitted releases of hazardous substances at currently operating facilities. The contractor shall incorporate these findings into the comprehensive report developed under Task 5 of this work assignment.

**Task 3. Continue to Collect and Analyze Information about Currently Operating Hardrock Mining/Processing Facilities and Releases of Hazardous Substances**

Taking into consideration the work performed in work assignment 2-19, including: 1) the numerous data sources and files provided by EPA, 2) the framework that was developed and approved by the EPA WAM, 3) the *Proposed Data Collection Process for Historical Sites and Currently Operating Facilities* that was approved by the EPA WAM, and 4) the approach used/data for developing a prototype profile for one or more initial commodities (e.g., gold), contractor shall continue to collect and analyze data about the currently operating facilities (mining and processing) to assist EPA in better understanding the extent to which current operating hardrock mining and processing facilities have non-permitted releases of CERCLA hazardous substances. The contractor shall incorporate these findings into the comprehensive report developed under Task 5 of this work assignment.

**Task 4. Continue to Evaluate Emergency Response Notification System (ERNS) Reports**

Using the protocol as described in *Technical Paper 3\_ERNS Reports Selection* and drawing upon the experiences of investigating these data for the initial prototype profile for one or more commodity(ies) developed under work assignment 2-19, the contractor shall continue determining to what extent, if any, follow-up cleanups of released CERCLA hazardous substances were taken by federal/state agencies in response to initial calls to the Emergency Response Notification System (ERNS) Reports data (1990-2013), as provided by the EPA WAM. The contractor shall evaluate this information to assist in determining the extent to which non-permitted releases of CERCLA hazardous substances continue to occur and the types and causes of such releases. The contractor shall incorporate these findings into the comprehensive report developed under Task 5 of this work assignment.

### **Task 5. Continue to Prepare Individual Commodity Profiles for Integration into Comprehensive Report Evaluating Releases of Hazardous Substances at Historical versus Currently Operating Facilities**

Taking into consideration the initial profile(s) and other work developed under work assignment 2-19, in conjunction with work performed under Tasks 2 through 4 under this work assignment, the contractor shall continue to develop individual profiles for each of the commodity groups (addressing all sub-commodities, if applicable) for inclusion into a comprehensive draft report. The profiles shall include an overview of the commodity group, indicate how mining/processing operations have changed (or not changed), and show how federal/state regulatory programs have impacted releases of hazardous substances. These profile must be more than simply case studies, i.e., it must provide inferences about the commodity group and sub-commodities, as a whole.

The contractor shall assemble and integrate these profiles into a draft comprehensive report that describes the extent to which current mining/processing practices and federal/state environmental regulatory programs have precluded the types and causes of releases of hazardous substances that triggered a CERCLA cleanup at the historical sites within each commodity group/sub-commodity. After receiving approval by the EPA WAM, the contractor shall modify the draft comprehensive report per EPA comments and prepare a final comprehensive report.

EPA anticipates that the findings of this work assignment will be made part of the rulemaking docket for the eventual proposed rule regarding CERCLA 108(b) Financial Assurance for hard rock mining. As such, this final comprehensive report must be of sufficient detail, organized, and properly documented, for potential submission to the public docket in support of the rulemaking. All aspects of data collection, processing, quality control, and reporting procedures shall be conducted and documented in accordance with industry-accepted guidelines and in accordance with ORCR's Quality Management Plan and EPA's Quality Manual for Environmental Programs (<http://www.epa.gov/quality>). The contractor will properly cite the environmental data used. No CBI data will be accessed or used. See also EPA Website: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html). When preparing documents that cite others' work as technical references, the contractor shall supply electronic versions of each technical reference cited, except when the reference consists of an online database (in which case the contractor shall supply a URL together with the date the data were accessed, and a description of any query language used). The contractor shall develop, as applicable, one or more Excel worksheets to allow EPA to readily sort the gathered information.

<b>Deliverables</b>	<b>Due Date</b>
Draft Comprehensive Report	Within 30 days of EPA WAM approval of the final profile
Final Comprehensive Report	Within 10 days of EPA WAM approval of draft comprehensive report
Draft Excel Worksheet(s)	Concurrent with draft comprehensive report
Final Excel Worksheet(s)	Concurrent with final comprehensive report

### **Deliverables and Schedule**

The Contractor shall provide 3 paper copies and an electronic file for each deliverable except for Task 1. The Contractor shall deliver electronic files in Word (or other approved formats when specified). The Contractor shall also deliver 3 copies of the CDs containing all the data files and tables developed in Microsoft Excel format, as appropriate.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-19				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number       3			Hardrock mining				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   04/30/2015   To   04/29/2016					
Comments: The purpose of this amendment is to approve the contractor's work plan/cost Estimate dated 05/20/2015 with a Level of Effort, (LOE) of 562 hours and \$54,448.33 (b)(4) cost (b)(4) fee). The Contractor is not authorized to go over the cost ceiling without the approval of the Contracting Officer.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO (Max 2) <span style="border: 1px solid black; padding: 2px;">22</span>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 378				
04/30/2012 To 04/29/2016										
This Action:						184				
Total:						562				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name    Bill Kline						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number    540-341-3631				
						FAX Number:				
Project Officer Name    Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:    703-605-0509				
						FAX Number:    703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name    Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:    202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-19				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-W-12-013			Contract Period   04/30/2015   To   04/29/2016 Base                      Option Period Number      3			Title of Work Assignment/SF Site Name Hardrock mining				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2015   To   04/29/2016				
Comments: The purpose of this amendment is to approve and accept the Contractor's no cost reallocation of 25 hours, request on June 11th 2015. The approved level of effort remains 562 hours. The contractor is not allowed to go over the approve ceilings without the approval of the Contracting Officer.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO (Max 2) <span style="border: 1px solid black; padding: 2px;">22</span>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 562				
04/30/2015 To 04/29/2016										
This Action:						0				
Total:						562				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name    Bill Kline						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>						Phone Number    540-341-3631				
						FAX Number:				
Project Officer Name    Shannon Sturgeon						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>						Phone Number:    703-605-0509				
						FAX Number:    703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>						Phone Number:				
						FAX Number:				
Contracting Official Name    Eulvid Rocque						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>						Phone Number:    202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-19				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003				
Contract Number EP-W-12-013			Contract Period   04/30/2015   To   04/29/2016 Base                      Option Period Number       3			Title of Work Assignment/SF Site Name Hardrock mining				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2015   To   04/29/2016				
Comments: The purpose of this amendment is to accept and approve the contractor's no cost reallocation of 76 hours requested on September 30, 2015. The approved level of effort remains at 562 hours. The contractor is not allowed to go over the approve ceilings without the approval of the Contracting Officer.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 562				
04/30/2015   To   04/29/2016										
This Action:						0				
Total:						562				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name    Bill Kline						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div>						Phone Number    540-341-3631				
						FAX Number:				
Project Officer Name    Shannon Sturgeon						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div>						Phone Number:    703-605-0509				
						FAX Number:    703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div>						Phone Number:				
						FAX Number:				
Contracting Official Name    Eulvid Rocque						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div>						Phone Number:    202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-19				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000004				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number       3			Hardrock Mining				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   04/30/2015   To   04/29/2016					
Comments: The purpose of this amendment is to approve the no cost increase of 59.1 hours and reallocation of funding request dated 11/17/2015. The total LOE for the work assignment is now 621.1 hours.										
<input type="checkbox"/> Superfund    Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:   0				
04/30/2012   To   04/29/2016										
This Action:						621				
Total:						621				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name    Bill Kline						Branch/Mail Code:				
_____ (Signature)    (Date)						Phone Number    540-341-3631				
						FAX Number:				
Project Officer Name    Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)    (Date)						Phone Number:   703-605-0509				
						FAX Number:    703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)    (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name    Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)    (Date)						Phone Number:   202-564-8316				
						FAX Number:				

Work Assignment Form, (WebForms v1.0)



**Statement of Work**  
**EPA Contract No. EP-W-12-013**  
**Work Assignment No. 3-19**  
**Amendment 4**

**Title:** Analytical Support for Evaluating Releases of CERCLA Hazardous Substances at Currently Operating Hardrock Mining and Processing Facilities Potentially Subject to CERCLA 108(b) Financial Assurance Requirements

**EPA Work Assignment Manager:** William Kline  
Office of Resource Conservation and Recovery (5303P)  
Email: [kline.bill@epa.gov](mailto:kline.bill@epa.gov)  
Phone: (540) 341-3631  
Fax: (540) 349-9181

**EPA Alternative WAM:** Michael Pease  
Office of Resource Conservation and Recovery (5303P)  
Email: [pease.michael@epa.gov](mailto:pease.michael@epa.gov)  
Phone: (703) 308-0008

**Background**

The Office of Resource Conservation and Recovery (ORCR) is developing a proposed rule to apply financial assurance requirements for facilities within certain hard rock mining and mineral processing commodities. A proposed rule for the hard rock mining and mineral processing industry is currently scheduled for publication in August 2016. The authorizing statute specifies that facilities establish and maintain evidence of financial responsibility “consistent with the degree and duration of risk associated with production, transportation, treatment, storage or disposal of hazardous substances.” Section 108(b) of CERCLA establishes regulatory authority with respect to financial responsibility requirements to compel classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, and disposal of hazardous substances. On July 28, 2009 (74 FR 37213), EPA identified hardrock mining facilities (i.e., extraction, beneficiation, and processing of ores and nonmetallic minerals) as the initial classes of facilities that will be subject to financial assurance requirements under CERCLA 108(b). EPA needs to better understand the extent to which the implementation of federal and State environmental regulatory programs, along with current mining/processing practices, have mitigated/eliminated the non-permitted releases of hazardous substances into the environment. This amendment specifically addresses work currently being performed under Tasks 3 and 5. EPA recently has received significant new data from a variety of sources concerning releases of CERCLA hazardous substances at hardrock mining and processing facilities. Under this amendment, per Task 3, EPA needs the contractor to evaluate the usefulness of these additional data. Given the work performed thus far by the contractor under Task 5 to evaluate current hardrock mining and processing practices, EPA believes it also is necessary to further evaluate specific management practices associated with mining and processing practices, e.g., the use of tailings ponds, waste rock piles, and generation of mine-influenced water (acid mine drainage) for inclusion into the overall findings.

**Task 3. Continue to Collect and Analyze Information about Currently Operating Hardrock Mining/Processing Facilities and Releases of Hazardous Substances**

EPA recently has received significant new data from a variety of sources (OECA, EPA Regions, and Jim Kuipers (mining expert)) concerning releases of CERCLA hazardous substances at hardrock mining and processing facilities. In amending Task 3, EPA needs the contractor to review, analyze, and, as applicable, incorporate and integrate this information into the findings to be presented in the comprehensive report to be developed under Task 5 of this work assignment.

**Task 5. Continue to Prepare Individual Commodity Profiles for Integration into Comprehensive Report Evaluating Releases of Hazardous Substances at Historical versus Currently Operating Facilities**

Under this task, the contractor has been and is continuing to develop write-ups of individual hardrock mining and processing practices to evaluate how mining/processing operations have changed (or not changed), and show how federal/state regulatory programs have impacted releases of hazardous substances. In performing this work, it has become evident to EPA that that the management of water, wastewater, and other residuals (e.g. in tailings ponds), waste rock piles, and the generation of mine-influenced water (acid mine drainage)) associated with the mining and processing practices, likewise need to be evaluated. Under this amendment of Task 5, the contractor shall further develop write-ups of these management practices in order to evaluate their role in and potential for the release of hazardous substances. The contractor shall incorporate and integrate these findings into the comprehensive report to be developed under Task 5.

EPA anticipates that this comprehensive report will be made part of the rulemaking docket for the proposed rule regarding CERCLA 108(b) Financial Assurance for hard rock mining and processing facilities as well as possibly be used in preparing preamble language. As such, this comprehensive report might well require several drafts in order to ensure it has sufficient detail, is appropriately organized and properly documented to meet these needs.

<b>Deliverables</b>	<b>Due Date</b>
Initial draft comprehensive report	By December 14, 2015
Up to three (3) re-drafts of the initial draft comprehensive report	TBD
Final comprehensive report	Within 10 days of EPA WAM approval of last draft comprehensive report

Work Assignment Form, (WebForms v1.0)

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-20				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016 Base                      Option Period Number       3			Title of Work Assignment/SF Site Name Ext. Ltr Peer Review UnencapBU				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   07/30/2015   To   04/29/2016				
Comments: The purpose of this amendment is to initiates Work Assignment (WA) 3-20. Rita Chow is appointed as the work assignment manager (WAM). The Level of Effort, (LOE) is in the amount of 426 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate as it relates to this request.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012 To 04/29/2016										
This Action:						426				
Total:						426				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   Rita Chow						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number   703-308-6158				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8316				
						FAX Number:				

**EPA CONTRACT NUMBER EP-W-12-013**  
**STATEMENT OF WORK**

**Work Assignment Number:** 3-20

**Work Assignment Amendment Number:** 0

**Title:** External Letter Peer Review of the *Approaches for Evaluating Unencapsulated Beneficial Uses of Industrial Byproducts*

**Work Assignment Manager (WAM):** Rita Chow

Address: IMRB/RCSD/ORCR/OSWER  
Mail Code 5306P  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

Telephone: (703) 308-6158  
(703) 605-0595 (FAX)

## **I. BACKGROUND:**

The U.S. Environmental Protection Agency (“EPA” or “the Agency”) supports the beneficial use of industrial materials when conducted in an environmentally acceptable manner. Industrial materials include byproducts resulting from manufacturing commodities and products, such as coal ash from electricity production, iron and steel slag from metal production, foundry sand from metal casting; and construction and demolition materials resulting from the construction and demolition of buildings, roads and other infrastructure. Beneficial use is the recycling or reuse of these materials instead of disposing them in landfills. Major opportunities exist to beneficially use industrial materials in an environmentally acceptable manner in upstream stages of the lifecycle – such as fly ash replacement for cement—and in downstream stages, such as through the reuse and recycling of construction and demolition materials.

Beneficially using industrial materials in civil engineering applications, such as roadways and structural fill, produces positive environmental, economic, and performance benefits, including reduced greenhouse gas emissions, reduced need for disposal of industrial materials, and reduced need for virgin resources. Thus, the recycling and beneficial use of industrial materials provides significant opportunities to advance sustainable materials management. While the potential benefits are clear, the environmental impacts must also be considered when determining whether a given material’s beneficial use is appropriate.

The Agency is providing several on-going and completed tools and assessments to assist states, tribes, local governments, and the regulated community in evaluating the environmental acceptability of beneficially using industrial materials. As examples, the

Agency's completed tools and assessments include the *Methodology to Evaluate Encapsulated Beneficial Uses of Coal Combustion Residuals*; *Beneficial Use Evaluation: Fly Ash Concrete and Flue-Gas Desulfurization Gypsum Wallboard*; and the new revised Industrial Waste Management Evaluation Model.

In continuing these efforts, the Agency has developed a draft document entitled *Approaches for Evaluating Unencapsulated Beneficial Uses of Industrial Byproducts* to aid in evaluating the environmental acceptability of unencapsulated uses of industrial byproducts, such as structural fill, road base, flowable fill, and blasting media. The draft document describes approaches and provides references to technical resources that can be used to evaluate the environmental acceptability of unencapsulated uses. This document also supports the Agency's commitment to the EPA Inspector General to develop a conceptual model for evaluating potential risks from unencapsulated uses of coal combustion residuals by April 15, 2016. The draft document is between 30 to 50 pages in length; and provides references to other technical resources.

With this work assignment, the Agency is seeking an independent letter peer review of the draft *Approaches for Evaluating Unencapsulated Beneficial Uses of Industrial Byproducts*.

## **II. PURPOSE:**

The purpose of this work assignment is to obtain the necessary technical support to assist the Agency in conducting an independent letter peer review of the draft *Approaches for Evaluating Unencapsulated Beneficial Uses of Industrial Byproducts*. The objective of the work assignment is to receive written comments from individual experts on the appropriateness of the approaches to evaluate the environmental acceptability of beneficially using industrial byproducts in unencapsulated applications; and the completeness and clarity of the draft document. All work shall be in compliance with the EPA Peer Review Handbook 3rd Edition, available at:  
<http://www.epa.gov/peerreview/pdfs/Peer%20Review%20HandbookMay06.pdf>

## **III. SCOPE OF WORK**

Consistent with the objective, the scope of this Work Assignment involves management of the overall peer review process, including:

- Identification and engagement of the independent expert reviewers;
- Distribution of review materials;
- Oversight of the technical peer review;
- Coordination of the review reimbursement; and

- Submission of the required deliverables

The contractor shall conduct the following tasks to accomplish the objective of this project. Due to technical and management decision-making uncertainties, all work done under this work assignment shall be initiated through Technical Directives (TDs), which will be submitted by the WAM. Each TD will require draft and final deliverables to WAM. These deliverables shall be in memorandum or report format, as appropriate for the material and requirements.

## **IV. Tasks 1-5**

### **Task 1: Work Plan, Budget, and Progress Reports**

#### Work Plan

No later than 20 calendar days after the receipt of the work assignment, the contractor shall prepare and deliver a work plan. This plan shall include:

- The level of effort for each of the tasks;
- A proposed budget including other direct costs;
- A schedule for providing deliverables;
- Key staff working on this work assignment; and
- How each task will be performed.

The work plan shall also identify any potential conflict(s) of interest.

In developing the Work Plan, the contractor shall make all best efforts to adhere to the schedule of deliverables below. Upon approval of the Work Plan, the contractor shall maintain bi-weekly communication with the WAM. The contractor may also call the WAM for clarification on any Work Plan issues.

#### Progress Reports

In addition to the work plan, the contractor shall prepare and deliver a monthly technical and financial progress report in conformance to the requirement of the contract. Each report shall include:

- Descriptions of work performed and deliverables submitted,
- Problems encountered and proposed solutions,
- Anticipated activities for the next reporting period,
- The financial status of the project including the status of remaining funds, and

- Any lagging costs and any other requirements.

## **Task 2: Identifying Peer Reviewers**

Under this task, the contractor shall identify and develop a list of potential peer reviewers and submit the list to the WAM. This task shall be initiated by a TD from the WAM. When developing the list, the contractor shall consider the individuals' knowledge and expertise in industrial byproducts generated from numerous industrial sectors (e.g., coal-fired electric utilities, metal casting, iron and steel, pulp and paper); and in assessing the environmental impacts of beneficially using these byproducts in unencapsulated applications (e.g., roadways, embankments, structural fill, agricultural uses, etc.). The candidate reviewers shall have backgrounds ranging in geotechnical engineering, civil engineering, soil/plant science, groundwater hydrology, contaminant fate and transport, toxicology, and human health risk assessment.

The candidate reviewers shall have scientific credentials equivalent to a PhD and shall be judged by authorship on original publications and/or reviews in peer-reviewed scientific journals. Reviewers may also be judged by other measures of expertise including professional accomplishments and recognition by professional societies.

As part of the identification process, the contractor shall also identify and address conflict of interest (COI) issues. EPA reserves the right to object to any potential reviewers from the list identified by the contractor who have a potential conflict of interest. In addition to considering technical qualifications and COI issues, the contractor shall also consider the availability of the candidate as one of the key criteria for creating the list and selecting the candidates due to the scheduling constraints imposed by the Agency's commitment to the EPA Inspector General and the public to complete the document by April 15, 2016.

Upon compiling the list of potential reviewers, the contractor shall deliver the list to the WAM within 10 calendar days of the receipt of the TD. The deliverable shall also include resumés of the potential reviewers, the description of the process used to develop the list as well as a description of any actual or potential conflict of interest. The WAM will then review and provide advice on the list for conformance with the technical expertise specifications and adherence to guidelines governing COI.

## **Task 3: Selection of Peer Reviewers & Invitation Letter**

Once the WAM reviews and approves the pool of candidates that meet the qualification criteria, the WAM will submit the approved names back to the contractor through a TD. The TD will include charge questions, and the draft document. From the approved list, the contractor shall choose at least four to five reviewers that will comprise the final list. The contractor shall conduct the selection process consistent with guidelines established under the EPA Peer Review Handbook 3rd Edition.



As part of this Task, the contractor shall also develop and deliver a draft invitation letter. The COR will review and may provide comments on the draft invitation letter. Upon receipt of comments, the contractor shall incorporate such comments into the final invitation letter.

Under this Task, the contractor shall provide the following deliverables: final list of candidate peer reviewers and the draft invitation letter, within 5 calendar days after the receipt of the TD. The contractor shall provide a final copy of the invitation letter to the WAM within 3 calendar days of receiving comments from the WAM.

#### **Task 4: Development of Peer Review Material**

Upon the selection of the qualified peer reviewers, the contractor shall prepare the draft transmittal materials for distribution to each reviewer that includes all requirements established by the TD, including the following:

- 1) Reviewers' responsibility;
- 2) Schedule of review;
- 3) Peer reviewer charge questions as submitted by the WAM; and
- 4) The document, *Draft Approaches for Evaluating Unencapsulated Beneficial Uses of Industrial Byproducts*.

The deliverables of the draft transmittal materials under this Task are due within 5 calendar days after receiving the TD, and the final versions within 3 calendar days after receiving comments from the WAM.

#### **Task 5: Conduct Peer Review, Compile Comments and Prepare a Peer Review Report**

Upon completion of Task 4, the contractor shall conduct and monitor the independent letter peer review process and deliverable dates. Activities under this task shall include the following:

The contractor shall distribute all the review materials necessary for the reviewers to conduct a letter peer review of the *Approaches for Evaluating Unencapsulated Beneficial Use of Industrial Byproducts*. This includes the materials described in Task 4.

The contractor shall instruct the peer reviewers to prepare a report that describes the nature of their review, findings, and conclusions. The report shall address all areas identified by the WAM in the peer review charge, and include supporting references and rationale for recommendations and conclusions as appropriate.

Each reviewer will have 25 calendar days to complete the review which includes accounting for follow-ups from EPA, if requests are made by reviewers. For the reason mentioned above, the EPA strongly prefers that the reviews occur within the same time frame. During the review process, the contractor shall coordinate periodically with the reviewers and communicate to the WAM on any issues that require the EPA's follow-up (including any potential lapses in meeting the schedule).

#### Peer Reviewers Comments

At the completion of the reviews, the contractor shall review, compile, and submit the peer reviewers' written comments to the WAM. The contractor shall review the comments for clarity and ensure that the reviewers have fulfilled their responsibilities under their agreement with the contractor. The contractor shall not edit or rearrange the comments, but provide them in an electronic format (MS Word or Adobe PDF) as sent in the original form with the reviewers' cover/comment letter. This deliverable of the compilation of the peer reviewers' comments is due no later than 5 calendar days after receipt of the comments from the peer reviewers.

#### Peer Review Summary Report

The contractor also shall produce a peer review summary report. This document shall include:

- 1) A list of the peer reviewers and their brief resumés;
- 2) A description of the review process;
- 3) A brief introduction and summary of where peer reviewers agreed or disagreed;
- 4) Individual comments aggregated and organized by topic area and charge question such that the Agency's response to these comments will be facilitated;
- 5) A table of contents whose headings include the topic areas or charge questions addressed in (2) above, and whose subheadings include a short (less than a sentence) description of the individual comments; and
- 6) A collated and compiled version of the unedited, individual letter reviews with the reviewer's cover/comment letter.

The deliverable of the draft peer review summary report is due no later than 10 calendar days after the receipt of comments from the peer reviewers. The WAM will review and provide comments on the draft peer review summary report. The final report incorporating comments from the WAM shall be delivered within 5 calendar days after receiving comments from the WAM.

## V. Schedule of Deliverables

Listed below is a description of the deliverables and milestones to be completed under this work assignment.

<b>Peer Review Schedule for Draft Beneficial Use Framework</b>	
<b>Deliverables Items</b>	<b>Due Date</b>
<b>Task 1. Development of Work Plan</b>	
Work Plan and Budget	20 calendar days after the approval of work assignment.
Progress Reports	Monthly
<b>Task 2. Identify a List of Potential Peer Reviewers</b>	
List of potential peer reviewers, description of the identification process, and potential COI	No later than 10 calendar days after the receipt of TD.
<b>Task 3. Selection of Peer Reviewers</b>	
Final peer reviewers list and draft invitational letter	No later than 5 calendar days after the receipt of TD.
Final invitational letter	No later than 3 calendar days after receiving comments from the COR.
<b>Task 4. Prepare Peer Review Material</b>	
Draft Peer Review material	No later than 5 calendar days after the receipt of TD
Final Peer Review material	No later than 3 calendar days after the receipt of comments from COR.
<b>Task 5. Conduct Peer Review, Compile Comments and Prepare a Peer Review Summary Report</b>	
Complete set of Peer Reviewers' comments	No later than 5 calendar days after the receipt of complete set of comments from the Peer Reviewers; Peer Reviewers will be given 25 calendar days to complete their review.
Draft Peer Review Summary Report	No later than 10 calendar days after the receipt of comments from the Peer Reviewer.
Final Peer Review Summary Report	No later than 5 calendar days after receiving EPA's comment on the

	draft report.
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<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-20				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number       3			External Peer Review BU				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   07/30/2015   To   04/29/2016					
Comments: The purpose of this amendment is to approve the contractor's work plan and cost estimate dated 8/19/2015 with a level of effort of 309 hours and \$42,199.89 <u>(b)(4)</u> cost <u>(b)(4)</u> fee). The contractor is not authorized to go over the approved cost ceiling of \$42,199.89 without the approval from the contracting officer.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data					<input checked="" type="checkbox"/> Non-Superfund					
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 426				
04/30/2012   To   04/29/2016										
This Action:						-117				
Total:						309				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   Rita Chow						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number   703-308-6158				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 3-20								
		<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002								
Contract Number EP-W-12-013	Contract Period   04/30/2012   To   04/29/2017 Base                      Option Period Number      3	Title of Work Assignment/SF Site Name Ext. Peer Review Unencap BU								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   07/30/2015   To   04/29/2016								
Comments: The purpose of this amendment is to stop work on work assignment 3-20 and de-scoping remaining level of effort (LOE) of 305.5 hours, \$40,800.20 (Cost (b)(4) Fee) therefore the total approved LOE is 3.5 hrs. and \$1,189.97 (b)(4) cost (b)(4) fee).										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO    22                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2012   To   04/29/2017				309						
This Action:				-306						
Total:				4						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Rita Chow						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-308-6158				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-21				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016 Base                      Option Period Number       3			Title of Work Assignment/SF Site Name RCRC Public Manual Update				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   05/27/2015   To   04/29/2016				
Comments: The purpose of this amendment is to initiate Work Assignment(WA)3-21. Kimberly Katonica-Mule is appointed as the work assignment manager (WAM. The level of effort (LOE) is in the amount of 655 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012   To   04/29/2016										
This Action:						655				
Total:						655				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   Kim Katonica  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number   703-308-6087 FAX Number:				
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8316 FAX Number:				

**Statement of Work**  
**EPA Contract #: EP-W-12-013**  
**WA # 3-21**

1. **TITLE:** *RCRA Public Participation Manual Update*
  
2. **PERIOD OF PERFORMANCE:** Date of CO signature through April 30, 2016
  
3. **WORK ASSIGNMENT MANAGER:** Kim Katonica-Mule'  
  
Office of Resource Conservation and Recovery (ORCR)  
Permits Improvement and Implementation Division  
Federal, State, and Tribal Programs Branch (FSTPB)  
  
Mailing Address:  
  
US Environmental Protection Agency  
MC 5303-P  
  
1200 Pennsylvania Avenue, NW  
  
Washington, DC 20460  
  
Phone: 703-308-6087  
  
E-mail: [Katonica.kim@epa.gov](mailto:Katonica.kim@epa.gov)

**BACKGROUND**

The U.S. Environmental Protection Agency's Office of Resource Conservation and Recovery (ORCR) is responsible for oversight and implementation of the Subtitle C RCRA program. Under this program, RCRA governs the permitting of hazardous waste management facilities and is the foundation for public involvement activities during the permit and cleanup processes. EPA's RCRA regulations provide for public participation at all permitted hazardous waste management facilities—from before permit application, through the permitting process, and during the permit's life. Facilities applying for a permit are required to involve the public in some aspects of the process. Businesses and the state or federal permitting agency also are required to make information available to the public. The public has opportunities to submit comments and request public hearings.



## **OBJECTIVE**

To communicate the continued importance of improving cooperation and communication among all participants in the RCRA permitting process, FSTPB seeks contract support to update the *RCRA Public Participation Manual*<sup>1</sup>. Under this statement of work (SOW), IEC, will research community engagement practices at RCRA sites to provide examples of new practices, and include new information about technical assistance, environmental justice, social media, and other topics that have come to the forefront since the 1996 edition. IEC will also provide support to design, develop, and assist in the final production of the updated *RCRA Public Participation Manual*.

Specifically, IEC will complete and provide camera ready materials for the updated *RCRA Public Participation Manual* and other supporting outreach materials, including fact sheets. IEC will also provide support in determining the most effective mode of outreach to the public. In some tasks, IEC will research the subject matter and gather information in addition to what the EPA provides.

## **SCOPE OF WORK**

The contractor shall perform the following tasks:

### **TASK 1. Work plan and budget, work assignment management**

The contractor shall prepare a work plan and budget within 20 days after work assignment approval. The work plan must include a description of how the contractor shall accomplish each task, along with a breakdown, per task, of level of effort by professional level, a cost breakdown, and any underlying assumptions used. In addition, the work plan shall include a brief description of the specific tasks each individual will be assigned to work as well as a copy of each individual's resume (formatted per the contract requirements), which includes the experience and expertise that is relevant to these activities.

The contractor shall prepare and deliver a monthly technical and financial progress report in conformance with requirements of the contract. In addition to the requirements set forth in the contract, for each monthly report, the contractor shall include a breakdown of labor hours charged by person for each task, for both current period and cumulative to date.

#### **DELIVERABLES**

Work Plan and Budget

Technical and Financial  
Progress Reports

#### **DUE DATE**

20 days after WA Approval

15 days after close of  
each Reporting Period

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<sup>1</sup> The *RCRA Public Participation Manual* can be found at:  
<http://www.epa.gov/osw/hazard/tsd/permit/pubpart/manual.htm>

## **TASK 2: Update the RCRA Public Participation Manual (1996 Edition)**

The contractor shall provide technical support to EPA in updating the *RCRA Public Participation Manual*. Support includes:

- Information to delete, add and/or update; and
- Publication development, including copy editing, proof reading, graphics production, illustration, layout and design as well as preparation of camera-ready materials for GPO printing.

A final draft version of the *RCRA Public Participation Manual* must be completed by September 1, 2015.

### **Task 2: RCRA Public Participation Manual Revisions Deliverables Schedule**

<b>Task</b>	<b>Deliverable</b>	<b>Due Date</b>
Kick-off meeting	Initial meeting to discuss project	Within two weeks after the work assignment is in place.
Outline	Outline describing the changes which will be made to the <i>RCRA Public Participation Manual</i>	Within 4 weeks after the kick-off meeting.
Formatting/Graphic/Updating the <i>RCRA Public Participation Manual</i>	Drafts, Interim Drafts, and Final Draft	Draft – within 10 days of EPA comments. Interim draft(s) – within 10 days of EPA comments. Final Draft – Camera-ready within 5 days of EPA approval
Prepare and Submit a final draft of the <i>RCRA Public Participation Manual</i> to the EPA WAM.	Final Draft	September 1, 2015

## **QUALITY ASSURANCE ACTIONS**

- The contractor shall coordinate and integrate all activities needed to execute the support required. Planning shall be comprehensive; plans shall be implemented as approved or deviations documented as appropriate to meet the needs of this SOW; problems or concerns and possible corrective actions shall be identified and implemented in a timely

and efficient manner; responses to inquiries, and/or technical, service, administrative issues, etc., shall be handled in a timely, complete and effective manner. The contractor shall also have knowledge of EPA's policy as well as understanding of the EPA's permitting process, public participation, and environmental justice.

- The contractor shall use QA monitoring tools to ensure technical support and deliverables meet contract and task order requirements. EPA will evaluate the contractor based upon (1) the contractor's responsiveness to EPA's needs throughout this SOW, (2) the functionality, accuracy, and technical quality of the contractor's work being at all times professional and deliverables being complete and free of technical errors and/or typographical or grammatical errors, (3) the contractor's ability to accomplish high quality work within the agreed upon time frames, (4) the contractor's timeliness in completing all work, and (5) the contractor's regular communication regarding this SOW progress and prompt notification as funding thresholds are approached.
- All communications materials will meet EPA's editorial, printing, website, and graphic design requirements as well as government-wide paper, style, and color requirements as specified by the U.S. Government Printing Office (GPO) and the Joint Committee on Printing. All materials developed under this Statement of Work (SOW) are the property of EPA.
- The contractor shall notify the WAM when 75% of the funds and hours for the work assignment have been expended as stated in the contract. The contractor shall not exceed either the dollar or the professional labor hour budget of a work assignment without written approval from the CO. In addition, on quick response tasks (QRT's) the contractor shall not exceed the PL hour budget of the QRT unless a QRT amendment is issued by the PO to increase the authorized budget of the QRT.
- EPA may require quick turnaround support (i.e. 30 calendar days or less) in connection with this work assignment such as: creating and editing publications, documents, fact sheets, CD-ROMS, and conducting research. However, because EPA cannot define some of its specific requirements at this time, this work may be ordered at a later date by issuing one or more technical directives (TDs). Written TDs shall be issued by the EPA WAM to the contractor on an "as-required" basis.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <h1 style="margin: 0;">EPA</h1> </div> <div> <p>United States Environmental Protection Agency Washington, DC 20460</p> <h2 style="margin: 0;">Work Assignment</h2> </div> </div>		<p>Work Assignment Number 3-21</p> <p><input type="checkbox"/> Other    <input checked="" type="checkbox"/> Amendment Number: 000001</p>																																																																		
<p>Contract Number EP-W-12-013</p>	<p>Contract Period   04/30/2012   To   04/29/2016</p> <p>Base                      Option Period Number                      3</p>	<p>Title of Work Assignment/SF Site Name RCRA Public Manual Update</p>																																																																		
<p>Contractor INDUSTRIAL ECONOMICS, INCORPORATED</p>		<p>Specify Section and paragraph of Contract SOW</p>																																																																		
<p>Purpose:</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Work Assignment  <input checked="" type="checkbox"/> Work Assignment Amendment  <input type="checkbox"/> Work Plan Approval         </div> <div> <input type="checkbox"/> Work Assignment Close-Out  <input type="checkbox"/> Incremental Funding         </div> </div>		<p>Period of Performance</p> <p>From   05/27/2015   To   04/29/2016</p>																																																																		
<p>Comments:</p> <p>The purpose of this amendment is to approve and accept the contractor's work plan/cost Estimate dated June 17, 2015 with a level of effort (LOE) of 465 hours and \$59,038.54 (b)(4) cost (b)(4) fee. The contractor is not allowed to go over the approve ceilings without the approval of the Contracting Officer.</p>																																																																				
<div style="display: flex; justify-content: space-between; align-items: center;"> <input type="checkbox"/> Superfund         <p>Accounting and Appropriations Data</p> <input checked="" type="checkbox"/> Non-Superfund       </div>																																																																				
<p>SFO (Max 2)    <span style="border: 1px solid black; padding: 2px 10px;">22</span></p> <p style="text-align: center; font-size: small;">Note: To report additional accounting and appropriations date use EPA Form 1900-69A.</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Line</th> <th>DCN (Max 6)</th> <th>Budget/FY (Max 4)</th> <th>Appropriation Code (Max 6)</th> <th>Budget Org/Code (Max 7)</th> <th>Program Element (Max 9)</th> <th>Object Class (Max 4)</th> <th>Amount (Dollars)</th> <th>(Cents)</th> <th>Site/Project (Max 8)</th> <th>Cost Org/Code (Max 7)</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>			Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)	1											2											3											4											5										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)																																																										
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<table style="width: 100%;"> <tr> <td style="width: 60%;">Contract Period: 04/30/2012 To 04/29/2016</td> <td style="width: 40%;">Cost/Fee:                      LOE: 655</td> </tr> <tr> <td>This Action:</td> <td style="text-align: right;">-190</td> </tr> <tr> <td>Total:</td> <td style="text-align: right;">465</td> </tr> </table>			Contract Period: 04/30/2012 To 04/29/2016	Cost/Fee:                      LOE: 655	This Action:	-190	Total:	465																																																												
Contract Period: 04/30/2012 To 04/29/2016	Cost/Fee:                      LOE: 655																																																																			
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Total:	465																																																																			
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<p>Work Assignment Manager Name   Kim Katonica</p> <div style="border-top: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>		<p>Branch/Mail Code:</p> <p>Phone Number   703-308-6087</p> <p>FAX Number:</p>																																																																		
<p>Project Officer Name   Shannon Sturgeon</p> <div style="border-top: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>		<p>Branch/Mail Code:</p> <p>Phone Number: 703-605-0509</p> <p>FAX Number: 703-308-7903</p>																																																																		
<p>Other Agency Official Name</p> <div style="border-top: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>		<p>Branch/Mail Code:</p> <p>Phone Number:</p> <p>FAX Number:</p>																																																																		
<p>Contracting Official Name   Eulvid Rocque</p> <div style="border-top: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>		<p>Branch/Mail Code:</p> <p>Phone Number: 202-564-8316</p> <p>FAX Number:</p>																																																																		

Work Assignment Form. (WebForms v1.0)

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-22				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016 Base                      Option Period Number      3			Title of Work Assignment/SF Site Name Waste Generator Tools				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW Task IV					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2015   To   04/29/2016				
Comments: The purpose of this amendment is to initiates Work Assignment (WA) 3-22. David Nicholas is appointed as the work assignment manager (WAM). The Level of Effort, (LOE) is in the amount of 284 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate as it relates to this request.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012   To   04/29/2016										
This Action:						284				
Total:						284				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   David Nicholas						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>						Phone Number   202-566-1927				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)                      (Date)</div>						Phone Number: 202-564-8316				
						FAX Number:				

Contract #: EPW 12 013  
**Statement of Work WA 3-22**

**Title:** eEnterprise Scoping Analyses in OSWER – Waste Generator Tools

<b>Contracting Officer's Representative:</b>	<b>Name:</b>	David Nicholas
		202-566-1927
<b>Address:</b> OSWER/PARMS (5103t) 1200 Pennsylvania, NW, Washington, DC 20460	<b>Fax No:</b>	202 566-1952

**BACKGROUND, PURPOSE AND SCOPE**

The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 hold all federal agencies accountable for how they use their resources to achieve results. It requires: (1) strategic planning, (2) the development of measures to assess program performance and progress, (3) that information is reported to the public, and (4) that agencies develop a schedule of planned and completed program evaluations.

Assessing the benefits of modernizing our national system of environmental protection, in coordination with our state, local, and tribal partners is an essential component to understanding our progress towards agencywide GPRA goals and objectives. The initiative to modernize the way environmental results are monitored, reported and assessed is known as eEnterprise.

eEnterprise is an initiative between States and EPA to improve environmental outcomes through maximizing the use of advanced monitoring and technology; optimizing program operations; increasing transparency; and to dramatically enhance service to the regulated community and the public. This initiative will expand the use of advance monitoring technology in research, regulations, and inspections so that government, regulated entities and the public will have better information on sources of pollutants and environmental conditions. This statement of work covers the support needed to assess the benefits of taking this new approach and describe the positive impacts and costs in both quantitative and qualitative terms.

To ensure state perspectives are included, EPA and the Environmental Council of States (ECOS) formed a Working Group in June 2012 to collaboratively pursue electronic reporting between regulated entities and environmental government regulators. However, electronic reporting is only one part of a much larger set of opportunities and challenges that need to be addressed as we seek to modernize our approach to environmental protection using advances in both emissions/pollutant monitoring and information technology. Further, on December 5, 2012 the President of ECOS and the US EPA Deputy Administrator signed a joint statement confirming the commitment of the States and EPA to collaboratively govern eEnterprise.

In this larger initiative, called eEnterprise, regulated entities could electronically conduct business transactions with the government. The tools/systems that support this should be “smart” to help entities understand their regulatory

obligations, eliminate duplicative entry of information and efficiently support electronic signature requirements consistent with proposed EPA and state regulations. Quantifying and describing these beneficial impacts is a necessary step in managing the eEnterprise initiative and will form the core of this statement of work's tasks.

Making informed interpretations of RCRA requirements is essential to protecting human health and the environment. At the facility level, waste determinations are difficult to make using existing tools/guidance. Inaccurate determinations can either cost the facility more money than necessary, or alternately, result in wastes being mismanaged according to protective regulatory standards. Online decision support tools (ie, Turbo-Tax wizards) are under consideration by the eEnterprise Leadership Council as one of several means of addressing this problem. Based on a project proposal by Arizona Department of Environmental Quality (AZ DEQ), OSWER is co-chairing the development of a scoping analysis, or feasibility study, to identify the key issues and opportunities for using online decision support tools for waste generators.

The wide range of industrial activity and diversity of waste streams make a comprehensive analysis difficult. This analysis will focus on one subset of wastes as a starting point; solvents. Our analysis could be expanded into other waste streams later if desired. An online tool would provide a higher likelihood of selecting the correct generator status, and thus a higher likelihood of compliance. Another potential benefit would be the opportunity for providing compliance assistance via the online tool.

To better understand the "as-is" baseline, AZ DEQ will convene a cross-section of large, medium, and small generators and conduct process stream mapping. This will be conducted in a 1 or half day mini-kaizen event or expanded to a longer multi-day session supported by a neutral facilitator supplied by the contractor.

Co-chairs; AZ DEQ and OSWER will report progress regularly to the EPA/State joint governance body of the eEnterprise Leadership Council; tentatively planned for July 20, August 18 and following the Fall ECOS meeting on September 3 as a target for completion and final report-out.

This work builds on previous tasks and the COR is authorized to provide written technical direction to the Contractor (with a courtesy copy to the Contracting Officer and Project COR) to clarify requirements already specified in this Statement of Work.

Work on this Call Order shall begin on date of award and end April 29, 2016. Work under this Call Order applies to task IV of the BPA SOW.

### **Task 1: Development of Workplan**

**The contractor shall develop and provide a workplan for this project no later than 10 working days after receipt of the work assignment. The workplan shall describe all required tasks and associated deliverables.**



## **Deliverables and Schedule**

Task 1. **No later than 10 working days after receipt of the work assignment.**

### **TASK 2: Preparation for Kaizen Event**

In consultation with the COR and EPA/State team, the contractor shall develop an agenda with expected results for the day long kaizen event including any background materials for participant preparation.

## **Deliverables and Schedule Under Task 2**

Agenda and Background Materials

- a. **Draft agenda 15 days after the COR** sends technical direction
- b. Final agenda and materials 5 days after COR sends comments.

### **TASK 3: Provide Facilitation for Kaizen Event**

The contractor shall supply a facilitator trained in Lean business process techniques to conduct a day-long kaizen event at AZ DEQ headquarters in Phoenix AZ in the latter part of July. AZ DEQ is inviting selected waste generators handling solvents, spanning the full spectrum of large, small and conditionally exempt generators to ensure a broad perspective of experiences. The event will result in both a workflow of the decision processes that generators make when choosing the status of their waste (hazardous or non-hazardous) as well as the identification of information generators use when making a waste determination decision. The contractor shall use wall charts and other traditional Lean techniques to capture a generator's workflow and decision making processes.

## **Deliverables and Schedule Under Task 3**

3-1 Facilitation of kaizen event in AZ DEQ HQ offices.

3-2 Summary reports of results and additional research questions

- a. Draft summary 5 days after the COR sends technical direction following the kaizen event.
- b. Final summary 5 days after COR sends final review comments including participants review.

### **Task 4: Written Report Describing Findings and Results of Kaizen Event**

The contractor shall summarize the results of the workflow and develop graphic charts for review and comment by the event participants as coordinated by the COR. The contractor shall finalize the charts and identify additional questions for further research and additional interviews in a brief report for the COR, three weeks after the kaizen event.

#### **Deliverables and Schedule Under Task 4**

- 4-1 Facilitation of kaizen event in AZ DEQ HQ offices.
- 4-2 Summary reports of results and additional research questions
  - a. Draft summary 5 days after the COR sends technical direction following the kaizen event.
  - b. Final summary 5 days after COR sends final review comments including participants review.

#### **TASK 5: Identification of Data Needs for Cost/ Benefit Assessment and Emerging Solutions in Final Report**

The contractor shall identify data needs to conduct more sophisticated cost/benefit assessments based on trends observed in the data collected in Tasks 3 and 4. The contractor shall identify emerging solutions to the barriers to broader online tool adoption if a formal cost/benefit assessment were to be undertaken as a next step for further study. The contractor shall provide a draft report and revise into a final report and senior management presentation less than ten pages as directed by the COR.

#### **Deliverables and Schedule Under Task 5**

- 5-1 Draft report and slide presentation 5 days after the COR sends technical direction
- 5-2 Final report 5 days after COR sends review comments

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-22				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2016 Base                      Option Period Number      3			Title of Work Assignment/SF Site Name eEnterprise Waste Gen Tools				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW task IV					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   06/11/2015   To   04/29/2016				
Comments: The purpose of this amendment is to approve the contractor's work plan and cost estimate dated 6/25/2015 with Level of Effort (LOE) 284 hours and \$31,925.40 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approved ceiling without the approval of the Contracting Officer.										
<input type="checkbox"/> Superfund    Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO (Max 2) <span style="border: 1px solid black; padding: 2px;">22</span>										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 284				
04/30/2012 To 04/29/2016										
This Action:						0				
Total:						284				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   David Nicholas  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number   202-566-1927 FAX Number:				
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8316 FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 3-22				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-W-12-013			Contract Period   04/30/2015   To   04/29/2016			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number       3			Waste Generator Tools				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   06/11/2015   To   04/29/2016					
Comments: The purpose of this amendment is to approve and accept the contractor's no cost reallocation of 28 hours, request on July 14, 2015. The approved level of effort remains 284 hours. The contractor is not allowed to go over the approved ceilings without the approval of the Contracting Officer.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 284				
04/30/2015   To   04/29/2016										
This Action:						0				
Total:						284				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee:		LOE:				
Cumulative Approved:				Cost/Fee:		LOE:				
Work Assignment Manager Name   David Nicholas						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number   202-566-1927				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8316				
						FAX Number:				